7-55-1 Soils Report

Updated March 19, 2021

1.1 Originator

Technical Services Section

1.2 Introduction

Our goal is to define an efficient path for the Project Development Section and the Technical Services Section - Soils/Materials staff to schedule work to ensure soils investigations are thorough and completed in a timely manner in order to keep projects on schedule.

1.3 Process

Soil Investigation for Roadways

The Region Soils & Materials Engineer will attempt to attend all project scoping meetings.

If it is decided that the design of the project will be turned over to a consultant, the WisDOT Project Manager should discuss with the Region Soils & Materials Engineer if the soils investigation will remain with the department or if the consultant will complete it. This should be done prior to the contract being signed by the consultant. If the soils investigation is turned over to the consultant, the Region Soils & Materials Engineer will assist in reviewing the consultant's geotechnical contract and will review the consultant's soils reports.

For most projects, the determination if a soils/pavement investigation is needed will be decided at the Phase 2 scoping meeting. The Regional Soils Engineer will request any needed borings or other soils/pavement investigation needs at that time if all the needed information is available. The needed information can include the submittals listed below. If a project does not follow the Phase 1,2,3 scoping process, or if the project scope changes after scope if finalized, the designer shall submit a Request for Soil Borings, Soundings, or Pavement Design Report to the appropriate Region Soils & Materials Engineer to initiate the soils/pavement investigation.

If a project requires a completed request form, or the project scope dictates, the designer will submit to the Region Soils & Materials Engineer the following information at a minimum:

- Alignment and Profile (.pdf and .dwg)
- Survey data for the project (.dwg)
- List of property owners along the project (.xml)
- Identification of roadway footprint outside the existing road core (i.e. addition of turn lane/bypass lane, curve on a new alignment, intersection widening, etc.) (.pdf)
- Additional information may be requested by the Region Soils & Materials Engineer on a project by project basis.

* Note: The request can be made as soon as the needed information above is available.

**** Note: Only one submittal per project is needed for both a soils report and pavement design report as long as information for both reports is included in the original submittal and both the Region Soils & Materials Engineer and the Region Pavement Design Engineer are sent the submittal. See SWIG 7-55-5 for more information on the Pavement Design Report.**

Boring requests can be submitted at any time. However, the work is restricted to warm weather months because of the use of water during the boring process and to minimize the risk of freezing occurring on the roadway.

The Region Soils & Materials Engineer will work with BTS Central Office Geotechnical Section to schedule the borings based on the project Scoping Phase 3 date. (The boring schedule is often influenced by several factors such as staff availability, work load across regions, crop growing season, inclement weather, geotechnical emergencies, etc.) PDS and the Region Soils & Materials Engineer should work together to get the subsurface exploration work completed in a timely manner. Please allow a minimum of 2 months after the soils report for the pavement report to be submitted.

If needed, the Region Soils & Materials Engineer completes a soils report, places the report in the SoilsPavement\Soils folder within the project folder on Box, and notifies the design team that the report is completed.

The Region Soils & Materials Engineer will contact the Region Pavement Design Engineer to let him know the soils report is completed.

Ground Penetrating Radar (GPR) and Falling Weight Deflectometer (FWD) can be utilized on a project-by-

project basis. Contact the Region Soils & Materials Engineer to determine if this could be utilized for your project.

Soil Investigation for Structures

For geotechnical information that is needed for structure design, reference the Determination of Structures, Geotechnical Engineering, and Subsurface Drilling Work Flowchart.

1.4 References

Request for Soil Borings, Soundings, or Pavement Design Report

Determination of Structures, Geotechnical Engineering, and Subsurface Drilling Work Flowchart

La Crosse Office Soils & Materials Engineer - *currently vacant*

Madison Office Soils & Materials Engineer - Melissa Markquart, melissa.markquart@dot.wi.gov

Melissa Markquart & Travis Mikshowsky	*2/18/2016*
Author	Date

7-55-5 Pavement Design Report (PDR)

Updated March 19, 2021

1.1 Originator

Technical Services Section

1.2 Introduction

Our goal is to define an efficient path for the Project Development Section and the Technical Services Section - Pavements staff to schedule work to ensure pavement investigations and Pavement Design Reports (PDR) are thorough and completed in a timely manner in order to keep projects on schedule.

1.3 Process

The Region Pavement Design Engineer will attempt to attend all project scoping meetings.

For in-house projects, the level of PDR (Full vs. Abbreviated) will be discussed at the Phase 2 Scoping Meeting and the report will be completed by the Region Pavement Engineer. If the project will be designed by a consultant, determine at the Phase 2 Scoping Meeting if the PDR will be completed under the consultant contract or by the Region Pavement Engineer. If a project does not follow the Phase 1,2,3 scoping process contact the Region Pavement Engineer to request a PDR or determine if the report will be completed under consultant contract if applicable. If the scope work changes after Phase 2 scoping, PDR completion, or initial PDR request contact the Region Pavement Engineer for adjustments to the pavement design or addenda to completed PDRs.

If the Pavement Design Report is turned over to the consultant, the Region Pavement Design Engineer will assist in reviewing the consultant's pavement design report.

**** Note: Only one submittal per project is needed for both a soils report and pavement design report as long as information for both reports is included in the original submittal and both the Region Soils & Materials Engineer and the Region Pavement Design Engineer are sent the submittal. See SWIG 7-55-1 for more information on the Soils Report process.**

At a minimum, the following information must be made available to the Region Pavement Design Engineer prior to completion of a Pavement Design Report:

- Traffic Forecast Data (.pdf)
- Basic traffic control information (detour or open to traffic)
- Basic construction staging including any temporary widenings or bypasses
- Soils information from the Region Soils & Materials Engineer (.pdf) if applicable
- Proposed and existing roadway geometrics (new vs. existing lane configuration, shoulder widening, etc.)
- Identify unique project pavement features (ex. Multi-use path, types of driveways, temporary asphalt, etc.)

Allow **a minimum of 2 months** for completion of the Pavement Design Report after the soils report has been completed.

If needed, the Region Pavement Design Engineer completes a Pavement Design Report as outlined in FDM 14-15-5 with signature cover sheet signed by the TSS Materials Supervisor and PDS Supervisor and places the report in the Box project folder location (SoilsPavement\Pavements).

Further information on the pavement design process is shown in FDM 14-10.

1.4 References

Request for Soil Borings, Soundings, or Pavement Design Report

FDM 14-10 Pavement Design

FDM 14-15-5 Pavement Design Report Content

Region Pavement Design Engineer - Andrew Phillips, andrew.phillips@dot.wi.gov

La Crosse Office Soils & Materials Engineer - *currently vacant*

Madison Office Soils & Materials Engineer - Melissa Markquart, melissa.markquart@dot.wi.gov

Region TSS Materials Supervisor - Travis Mikshowsky, travis.mikshowsky@dot.wi.gov

Timothy McCarthy	*2/18/2016*
Author	Date